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CLAIMS

Claims 1-36 are cancelled.

37. (New) A method comprising:

decrypting a sub-network layer packet to produce a decrypted sub-network layer packet;

extracting a checksum from the decrypted sub-network layer packet;

calculating a network layer checksum for a network layer packet comprising the sub-network layer packet

comparing the checksum extracted from the decrypted sub-network layer packet with the network layer checksum; and

detecting a loss of stream cipher synchronization if the network layer checksum does not match the checksum extracted from the decrypted sub-network layer packet.

38. (New) The method of claim 37, wherein detecting a loss of stream cipher

synchronization if the calculated checksum does not match a checksum extracted from the decrypted data packet further comprises:

a network layer of a protocol stack detecting the loss of stream cipher synchronization when the network layer checksum does not match the checksum extracted from the decrypted sub-network layer packet.

39. (New) The method of claim 37, further comprising:

the network layer checksum and the checksum extracted from the decrypted sub-network packet both for a network layer data payload.

40. (New) The method of claim 37, further comprising:

re-synchronizing a stream cipher with a transmitter of the encrypted sub-network packet

if the network layer checksum does not match the checksum extracted from the decrypted sub-network packet.

41. (New) A method comprising:

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calculating a network layer checksum for a network layer packet;
including the network layer checksum in a sub-network layer packet; and
encrypting the sub-network layer packet and including the encrypted sub-network layer packet as part of the network layer packet.

42. (New) A method comprising:
calculating a checksum for a packet of a first communication layer; and
including the checksum in an encrypted packet of a second communication layer lower than the first communication layer.

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